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*The Path to a
Carbon-Neutral Library*

MANDY HENK



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After her first day dusting copies of the Science Citation Index as a student assistant at Clark University (Worcester, Massachusetts) Science Library, **Mandy Henk** knew she had found her calling. A graduate of Simmons College School of Library Science and currently the Access Services Librarian at DePauw University in Greencastle, Indiana, Mandy devotes her time to activism, motherhood, writing, and librarianship. She was a 2011 Library Journal Mover and Shaker and one of the early guerrilla librarians of the People's Library at Occupy Wall Street. She rides an Xtracycle Radish and lives with her two children, husband, four cats, two frogs, and a dog.

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For Elliott and Hazel
and
In memory of Aaron Swartz

Contents

Acknowledgments *ix*

PART I

Transitioning to Sustainability in the Library

- 1 | Librarianship and the Three Es 3
- 2 | The Case for Sustainability in the Library 17
- 3 | Making the Transition: The First Steps 25

PART II

Building a Sustainable Library

- 4 | Ecology 37
- 5 | Economy 57
- 6 | Equity 67

PART III

Sustainable Librarianship in Practice

- 7 | The Challenges of Technology and Corporate Power
in the Library 71
- 8 | Curbing Corporate Power 85
- 9 | Resolving the Technology Dilemma 99
- 10 | Visioning the Sustainable Library 111

Appendixes

- A** Sustainability Assessment Worksheet 115
- B** Sample Sustainability Plan 127
- C** Resources for Starting a Sustainability Discussion
in Your Library 131

Bibliography 133

Index 145

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PART I

Transitioning to Sustainability in the Library

1

Librarianship and the Three Es

When I was a girl, there was a small creek that ran near my home. It wasn't really a creek, it was a drainage ditch designed to catch runoff from the houses around it and send the water into the sewage system. But its whole length was surrounded by trees and honeysuckle bushes, so it felt very much like a natural creek to me, especially since it usually had a small amount of water in it. Enough so that I and the other neighborhood children could pretend it was a creek and get good and muddy in it. When it rained hard, the ditch filled to the very brim and we could pretend it was a river. It never got too big to jump over though, and at the height of some summers it even dried up.

On May 3, 2010, I glanced at the news online from my office in Indiana and was startled to learn that my hometown of Nashville, Tennessee, was flooding. I watched in shock as pictures came over the web. Pictures of places I have known my whole life, now submerged under massive amounts of water. Places that I had never imagined flooding—nor had anyone else. The torrential rains only lasted for two days, but they brought almost 20 inches of rain and cost 31 lives. In Nashville, the amount of rain doubled the previous record for a two-day event. The Cumberland River crested at 51 feet, a level not seen

since flood control measures were implemented in the 1960s. At the end of it, Nashville suffered an estimated \$1.5 billion in damage. The symphony hall had sustained serious instrument loss, including two grand pianos and an organ. The Opry Mills mall, an important tourist destination, was destroyed by 10 feet of water—and did not reopen until 2012.¹

The thing that really brought home the destruction, though, was the creek. The little drainage ditch that I had played in as a child transformed into a raging river. It overran its concrete banks, knocked down honeysuckle bushes and young trees, and spilled out into the backyards and basements of families up and down the whole street. The little trickle of water, so small it dried up completely on occasion, had managed to bring mud and chaos to the bucolic street I called home for so many years.

For me, the flooding of Nashville brought home the need to take climate seriously and begin making changes in my life and in my work. For others, it may be the floods in Australia, Pakistan, Thailand, or Colombia;² it may be the droughts and wildfires in Colorado, Utah, Texas, Russia, France, and China;³ it may be the anomalous tornado season of 2011⁴ or the melting of the Arctic.⁵ The thing about climate change is that it is global in scope and no one will escape its impact. In an interview with climate blogger Joe Romm, climatologist Kevin Trenberth, head of the Climate Analysis Section at the National Center for Atmospheric Research, said, “I find [the impact of global warming] systematically tends to get underplayed and it often gets underplayed by my fellow scientists. . . . it’s unfortunate that the public is not associating these [weather events] with the fact that this is one manifestation of climate change. And the prospects are that these kinds of things will only get bigger and worse in the future.”⁶

The scientific literature shows that the need to develop carbon neutral economies and societies has become even more urgent in recent years. The very best guidance produced by scientists is that we must reduce the carbon in our atmosphere to below 350 parts per million (ppm) and hold it there.⁷ It might well need to be lower than that, but at the moment 350 ppm is the number believed to be the maximum amount of carbon in the atmosphere conducive to having a planet similar to the one onto which we were all born. Currently, our atmosphere is at 402 ppm and rising.⁸ Even if we manage to accomplish the necessary reduction, a by no means certain accomplishment, it appears increasingly likely that some of the worst impacts predicted by the United Nations (UN) Intergovernmental Panel on Climate Change will not be prevented and must be mitigated against.⁹

What does all this mean to librarians? And what do we need to do to prepare our libraries for the world we have created—the world Bill McKibben has named Eearth?¹⁰ McKibben writes, “We’ve changed the planet, changed it in large and fundamental ways. And these changes are far, far more evident

in the toughest parts of the globe, where climate change is already wrecking thousands of lives daily.” He goes on to say, “We can’t simply keep stacking boulders against the change that’s coming on every front; we’ll need to figure out what parts of our lives and our ideologies we must abandon so that we can protect the core of our societies and civilizations.”¹¹ Climate change presents a very real threat to the world we have built and the world in which our libraries and the institutions they serve have thrived. The realities of climate change—both the already increased dangers we face and the urgent need to drastically reduce the amount of carbon we release into the atmosphere—require librarians to develop new practices in our collection building and programming as well as a new understanding of the natural world and our relationship to it. If we fail to make this transition, we risk being left behind in the scrap bin of history as a relic of the Carbon Age. If we succeed in this transition, we can help lead our communities and institutions forward into a new sustainable future, one with healthy libraries and a healthy ecosystem.

Sustainability, as an idea, grew out of the international development sphere. Development specialists understood that building economies that respected the natural environment was crucial if the populations supported by those economies were going to be self-supporting.¹² They also understood that a healthy economy is one that distributes its benefits throughout society. Because of this, sustainability is often thought of in terms of the three Es: ecology, equity, and the economy. Because human society and our interactions with the ecosystem are so complex, sustainability advocates argue that addressing challenges in these areas in a complementary fashion is necessary to prevent the solution to one problem from becoming a problem in another area. In other words, by considering both problems and solutions broadly, we can make decisions whose impacts are understood across multiple dimensions and reduce the possibility of unfortunate surprises down the road.

James Speth, the former dean of the Yale School of Forestry and Environmental Studies, in his book *The Bridge at the End of the World: Capitalism, the Environment, and Crossing from Crisis to Sustainability* identifies seven reactions that people commonly have to our current sustainability predicament:¹³

Resignation: All is lost.

Divine Providence: It’s in God’s hands.

Denial: What problem?

Paralysis: It’s too overwhelming.

Muddling Through: It’s going to be alright, somehow.

Deflection: It’s not my problem.

Solutionist: Answers can and must be found.

Librarians need to take it upon ourselves to be Solutionists, both in our local communities and in our information system. We are living in a new and different world now than we were at the beginning of the information revolution, but mostly we haven't recognized the change yet. Libraries have a vitally important role going forward. To tackle the global threats we are facing as a society, we're going to need all the information literacy and lifelong learning we can muster and we're going to need it widely available. Librarians are responsible for protecting the public's right to information. If we are to enable our students, scholars, and citizens to counter the lies and propaganda about climate change coming from powerful and entrenched fossil fuel industries, we need to ensure their access to peer-reviewed science and authentic analysis, access that, as it stands now, lives far too often behind the expensive barrier of the corporate-owned and controlled scientific databases. We need to have citizens who are educated to carefully evaluate sources and who can distinguish between the emotional appeal of the propagandist and the objective data analysis of the scientist—a process that requires libraries staffed with well-trained librarians who have access to high-quality collections. In short, we need to create libraries of unparalleled excellence in both service and collections.

And yet, as enduring and as important as libraries should be, this is also a time when libraries are more vulnerable than ever to both external and internal shocks. Few libraries stand on their own; instead we are part of larger institutions—universities and colleges and cities and counties. As our home institutions thrive, we thrive, and when our home institutions suffer, so do we. Our budgets, our facilities, our staff, each of these is vulnerable to external shocks. The Great Recession that began in 2008 has been particularly harmful to library budgets. In 2009, *American Libraries Online* detailed tens of millions of dollars worth of budget cuts to academic libraries across the country.¹⁴ In an Association of College & Research Libraries (ACRL) survey, librarians “overwhelmingly indicated” that “funding constraints, budget cutbacks, and declining support for and increasing costs of academic/research libraries are the most challenging issues” their libraries face.¹⁵ Public libraries too are suffering from cutbacks. The state of California cut in half state funding for public libraries while also passing a trigger clause that could eliminate it completely.¹⁶ Texas has eliminated its direct grant program to public libraries and also reduced funding for its state library programs by 88 percent.¹⁷ My home state of Indiana has passed a constitutional property tax cap that all but ensures libraries will suffer serious cuts in the near future.¹⁸

But budget cuts are only one of the threats libraries are facing. We have also created an ecologically unsustainable dependence for ourselves and our users on a technological infrastructure that is gravely damaging to the environment. The servers and computers we and our users rely upon to deliver the

content we have purchased are part of the carbon problem.¹⁹ The combination of damage from energy use, mining of materials for electronic devices, and the damage caused from improper disposal of these devices is staggering. If we want to maintain the digital library that we have spent the last 20 years building, we need to find a way to transition to a technology that can be built and maintained without environmental destruction and without creating significant waste streams.

The technology we have grown so dependent on also rests upon a viciously exploitative labor system. And the abuses of this system are largely hidden from us and our users by a globalized production chain. Libraries are not unique in this respect—the globalization of production that took place in the past 30 years hid much labor abuse from consumers. The time to allow ourselves to overlook this abuse has passed. None of us would willingly purchase something we knew had been created under brutal management, but we have allowed ourselves the comfort of ignorance. When workers are literally killing themselves, dying from poison on the production line, and doing everything they can to improve their own lot, it behooves us to help them.²⁰ And that means using our power as institutional consumers to find alternatives.

The information revolution has another dark side as well—the consolidation of the publishing industry and the enclosure of the information commons. Both academic and general publishers have spent the past two decades engaged in a race to be the biggest company left standing.²¹ The result of this race is a publishing industry dominated by large multinational corporations that are able to wield their considerable economic power for political gain. The book, magazine, and newspaper industry, dominated by NewsCorp (owner of HarperCollins and FoxNews), McGraw-Hill, and Reed Elsevier spent almost \$22 million in the last presidential election cycle. The industry spent an additional \$12 million on lobbying in 2010.²² These giants of the industry have one goal that unites them—protecting and extending copyright law and the continued erosion of fair use and the right of first sale. They wield their power not only in the halls of Congress, but also through the courts. The recent copyright case against Georgia State University for their e-reserves is an example of this abuse.²³ Outside of industry players, almost everyone agrees that the copyright law and fair use need to be updated to reflect technological changes and to respect the rights of the public, who in the case of academic publishing, are often the ones who funded the research anyway.²⁴

Clearly, we have made a wrong turn. Overcoming the challenges we are facing requires us to look beyond practicality and to reexamine who we are and what we do as librarians. We are facing existential crises on multiple fronts: climate change and the immediate need to decarbonize our economy; the defunding and rapid “dismantling of the public sphere” and its attendant corporatization; the need to develop a technological infrastructure that is not

based on the social and ecological exploitation that has been a core feature of globalization; and the enclosure of the information commons that has come silently with the information revolution.²⁵ Librarians are not unique in having to face multiple converging crises as we move through the 21st century, but we have been slow to recognize the building crisis. When we have advocated for change, we have been reformists and incrementalists, but the time for a slow agenda has passed. Earth's climate will not wait, and our obligation to the future is pressing. Just the like the information revolution rapidly swept through libraries, the sustainability revolution must sweep through faster than we think we can stand.

Transitioning to sustainability requires more than just measuring and reducing environmental impact. That tactic has been tried without success for many years. The time has come to try a new approach—recommitting to our fundamental values and reviewing our operations to ensure that they match those values. This is already well under way outside of the library. Paul Hawken has documented thousands and thousands of organizations building what he calls the “largest movement in the world.”²⁶ Hawken describes this movement as “a collection of small pieces, loosely joined. It forms, dissipates, and then regathers quickly, without central leadership, command, or control.”²⁷ He writes of the movement, “It will soon suffuse most institutions, but before then, it will change a sufficient number of people so as to begin the reversal of centuries of frenzied self-destructive behavior.”²⁸ It is time to begin turning around the library we have built and aligning it with the future—with the movement to build a healthy and just world.

Reimagining the ethos and practice of librarianship to ensure that sustainability is brought to the forefront is a monumental task, and it is one that we need to undertake as a group, with voices from across the profession. Voices from small libraries and large, rich libraries and poor, and experienced librarians and newcomers to the profession, all have a stake in this conversation and all need to work together to guide the development of the future of librarianship. The task in front of us is nothing less than the matter of how we ensure that the accumulated knowledge of the world is preserved and made available to all the people of future generations, not only a small, privileged elite.

NOTES

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Index

A

academic libraries
 assessment tools for, 53, 63,
 65, 117, 121, 125
 budget cuts to, 6, 52
 sustainability plans for,
 32–33, 127–129
activism, 87–94, 107–108
administration, support from, 28–29, 30
advocacy, 87–94, 103–108
air conditioning, 41–42, 118
Alliance for Taxpayer Access, 88
American Library Association (ALA),
 87–88, 105
American Public Health Association,
 105–106
assessment tools
 for ecology initiatives, 40–43,
 45–49, 117–121

 for economy initiatives, 53–54,
 56–57, 59, 121–123
 for equity initiatives, 63–66, 123–125
 for initial assessments, 29–31
Association of College & Research
 Libraries (ACRL), 6
Association of Research Libraries (ARL),
 87–88
audits, energy, 39–40, 117, 128
automobiles, library owned, 46, 119

B

Bade, David, 79
batteries, disposal of, 47, 120
Bell, Daniel, 74
biking, encouraging, 43–45, 118
biodiversity, 19–20
Blessed Unrest (Hawken), 22
Bloomberg, Michael, 89–90

book blocs, 108
 book recycling, 47, 120
 bookmobiles, 46
 Bourg, Chris, 93
 boycott of Elsevier, 89, 91–92
The Bridge at the End of the World (Speth), 5
 Brown, Donald, 101–103
 Brown, Lester, 18–19
 Brundtland Report, 15–16
 budgets
 assessment tools for, 53–55, 121–122
 corporate power and, 79–80
 cuts to, 6, 52, 89–91
 buildings, 37, 41–43, 118
 bundling practices, 85, 91
 Buschmann, John, 52
 by-pass strategies, 78–79

C

Calhoun Report, 79
 carbon emissions
 inaction on, 21, 99–103
 levels of, 4, 101, 103
 neutralization of, 38–46,
 103–108, 128–129
 servers and, 6–7, 12, 38, 81
 taxes on, 62
 carbon footprinting, 39–40
 carpooling, 43–44, 118
 cataloging, 79–80
 CFL bulbs, 41–42, 118
 clean technology, 103–107
 Clean Water Act, 71–72
 climate change
 action on, 103–108
 denial of, 5–6, 99–101
 global scope of, 4–5, 21, 113
 inaction on, 101–103
 scientific support for, 18–21
 temperature increases and,
 21, 103, 105–106, 113
Climate Change Ethics (Brown), 102–103
 coal consumption, 20, 40, 103
*Code of Best Practices in Fair Use for Academic
 and Research Libraries*, 65, 125
 collaboration, 106–107

collections
 budgets for, 54–55, 121–122
 stewardship of, 7, 14
 college libraries. *See* academic libraries
 committees. *See* sustainability committees
 commons, enclosure of, 14, 75–78
 communities, relationships with, 28–29,
 58–59, 123–124
 computers
 assessment tools for, 42–43, 48, 118
 impact of, 6–7, 38
 conferences, 100, 105, 108
 consortiums, 57–58, 122–123
 contracts, with vendors, 14, 54, 57, 66,
 80, 126
 conversational norms, 100
 Conway, Erik M., 100
 corporate power
 advocacy and activism
 against, 85–89, 91–94
 loss of control to, 79–82, 85–87
 technology and, 57, 72–79
 Cost of Knowledge document, 91–92
 cost savings, 28, 40, 42
 cultural services, 19–20
Culture, Inc. (Schiller), 78

D

Daly, Herman, 18
 decarbonizing initiatives, 38–46, 128–129
 democracy, as library value, 12–13, 125
 denial, of climate change, 5–6, 99–101
 development, sustainable, 5, 15–16
 digital formats
 legal issues and, 65–66, 125
 stewardship and, 7, 14
 digital libraries
 actualization of, 72–74
 enclosure and, 75–82
 transitioning to, 7, 12
 direct action, 87–94, 103–108
 discovery layers, 79, 80–81
The Dismantling of the Public Sphere
 (Buschmann), 52
 Dupuis, John, 86
 Durley, Gerald, 103

E

Earth Democracy (Shiva), 76
 Earth system, limits of, 17–18, 21
 e-books, 65–66, 78–79, 125
 EBSCO, 80
 ecological economics, 17–18
 ecological footprinting, 39
 ecology
 decarbonizing efforts and,
 38–46, 128–129
 green products and, 49, 121
 recycling practices and,
 47–48, 120–121
 sustainability and, 5, 15–18
 economy
 ecology and, 17–18
 sustainability and, 5, 52–59
 ecosystem, of information, 38, 55–58,
 75–78
 ecosystem services, 19–20
 electricity usage, 38–43, 117–118
 Elsevier, 7, 52, 85, 89, 91–92
 emissions. *See* carbon emissions
 emotional norms, 100–101
 employees
 committee participation of, 26–27
 involvement in sustainability
 efforts, 33, 41–44, 118–120
 treatment of, 62, 64, 124–125
 enclosure
 of commons, 14, 75–78
 of libraries, 14, 78–82
 energy audits, 39–40, 117, 128
 energy consumption, 20
 Energy Star Rated machines, 42–43,
 118
 environmental literacy, 32
 environmentally friendly products, 49,
 121
 equality, as library value, 13
 equity
 intergenerational, 15, 16–17, 61
 sustainability and, 5, 61–67
 Estabrook, Leigh, 74
 E-Stewards program, 48
 e-waste, 48, 120

F

fair use, protection of, 7, 14, 65, 125,
 129
 FASTR Act, 88
 first sale, right to, 7, 14, 65–66, 125
 flooding, 3–4, 21
 food prices, 20–21
 footprinting process, 39–40
 fossil fuels, prices of, 20–21
 fresh water, 20–21
 Friends of the Library groups, 47, 54,
 121
 funding sources, 53–54, 121
 See also budgets

G

garbage disposal, 47–48, 120
 Gard, David, 38
 Gardiner, Stephen, 101–102
 global warming. *See* climate change
 goals and objectives, 30, 32–34, 51–52,
 65, 125
 government
 climate change regulation
 and, 102–103
 patron privacy and, 66–67, 125–126
 Gowers, Timothy, 89, 91
 Grant, Carl, 78, 80–81
The Great Transformation (Polyani), 76
 green products, 49, 121
 greening programs
 decarbonizing initiatives,
 38–46, 128–129
 as first step, 37–38, 131
 recycling practices, 47–48, 120–121
 on water usage, 48–49, 120
 Guédon, Jean-Claude, 73, 77
 Guerilla Open Access Manifesto, 92–93

H

Hansen, James, 62
 Hardin, Garrett, 14
 Harris, Paul, 102
 Hawken, Paul, 8, 22
 heating and cooling, 41–42, 118
 Himmel, Ned, 29, 42

How Green is My Library? (Mulford and Himmel), 42
 hybrid vehicles, 46, 119

I

impartiality, as library value, 13
 implicatory denial, 100
 incandescent bulbs, 41
 information, right to. *See* open access
 information ecosystem, 38, 55–58, 75–78
 information overload, 79
 information revolution, 7–8, 11–12, 72–74
 integrated library systems (ILSs), 58, 75, 78
 intellectual freedom, 13
 intergenerational equity, 15, 16–17, 61
 Intergovernmental Panel on Climate Change (IPCC), 4, 21
 interlibrary loan, 49, 57–58, 73, 77, 122–123
 intragenerational equity, 15, 17, 61

J

Jacobs, Michael, 16–17
 James Madison Award, 93
 journal clubs, 26, 129
 journals
 budgets for, 54, 121
 open access and, 56–57, 73–74, 76–77, 91–95, 129
 JSTOR, 93–94
 justice, 15, 16–17, 61

K

Kelley, Michael, 90
 Keoleian, Gregory, 38

L

labor system, exploitive, 7, 48
 landscaping, 48–49, 120
 leave policies, 64, 124
 LeClerc, Paul, 89
 LED bulbs, 41–42, 118
 legal issues, in digital environment, 14, 65–66, 125

librarians

disempowerment of, 81–82
 practicality of, 112
 role of, 6, 12–14, 56, 107–108
 as Solutionists, 5–6

librarianship, values of, 11–14, 62, 87, 113, 132

libraries

advocacy by, 87–94, 103–108
 as community leaders, 28–29, 58–59
 as consumers, 58–59
 as employers, 62, 64, 124–125
 enclosure of, 14, 78–82
 public, 6, 31, 58, 63, 89–90, 117
 visions of, 112–114
See also academic libraries;
 digital libraries

library by-pass strategies, 78–79

Library Journal, 87

license agreements, 57, 65–66, 122, 125

lighting, 41–42, 117–118

Limits to Growth study, 18–19

literacy

assessment tools for, 63–64, 124
 environmental, 32
 universal, 13

literal denial, 99–100

local economies, supporting, 53, 58–59, 123

M

mathematicians, activism of, 91–92

McKibben, Bill, 4–5, 103

Meadows, Donella, 111–112, 113

Merchants of Doubt (Oreskes and Conway), 100

metadata, 79–80

Millennium Ecosystem Assessment, 19–20

minority groups, 62–63, 124

monopoly power. *See* corporate power
 Mulford, Sam, 29, 42

N

National Institutes of Health Public Access Policy, 88, 92

natural gas consumption, 20
 neutralization, of carbon, 38–46, 103–108, 128–129
 New York City libraries, 89–91
 Neylon, Tyler, 91
 nonviolent action, 88–89, 92–94, 107–108
 Norgaard, Kari, 94, 99–101
 norms, of denial, 100–101
Notices of the AMS, 91–92

O

ocean acidification, 21
 oil consumption, 20, 103
 open access
 advocacy for, 6, 87–89, 91–94
 assessments on, 56–57, 122
 journals and, 56–57, 73–74, 76–77, 91–95, 129
 publishers' limits to, 73–78, 91–94
 open source software, 58, 67, 108
 Oreskes, Naomi, 100

P

paraprofessionals, 62, 64
 patrons
 protecting the rights of, 65–67, 80–81, 125
 service to marginalized, 62–63, 124
 support from, 28, 30, 116
 transportation and, 39–40, 45, 119
The Perfect Moral Storm (Gardiner), 101–102
 petroleum consumption, 20, 103
 pollution, impact of, 17–21
 Polyani, Karl, 76
 population growth, 18–21
 poverty and the poor, 16, 61–63, 124
 power, corporate. *See* corporate power
 prefigurative politics, 94
 Presidents' Climate Commitment, 106–107
 price increases
 of fossil fuels, 20–21
 by publishers, 52, 73, 85, 91
 Primo, 80
 printers, 42–43, 47–48, 118, 120

privacy, protection of, 13, 66–67, 125–126
 programming, 31, 63, 116–117, 123–124
 Progressive Librarians' Guild, 105
 provisioning services, 19–20
 public libraries, 6, 31, 58, 63, 89–90, 117
 public sphere, defunding of, 7, 52, 78, 85, 89
 public transportation, 43–45, 118–119
 publishing industry
 consolidation of, 7, 52, 56, 75–77
 open access policies and, 73–78, 91–94
 See also corporate power

R

reactions, to climate crisis, 5–6
 reading groups, 26
 read-ins, 90
 reason, as library value, 13
 recycling, 47–48, 71–72, 120–121
 Rees, William, 39
 regulating services, 19–20
 research libraries. *See* academic libraries
 Research Works Act, 88, 91–92
 resilience, 53
 right of first sale, 7, 14, 65–66, 125
 right to information. *See* open access
 right to read, 6, 65–67, 88, 125–126
 Romm, Joe, 4

S

Save NYC Libraries campaign, 89–91
 Schiller, Herbert, 78
 scholarly journals. *See* journals
 scholarship, as library value, 12–14
 servers, impact of, 6–7, 12, 38, 81
 Sharp, Gene, 88
 Shera, Jesse, 72–75
 Shiva, Vandana, 76–77
 social movements, 21–22, 103, 107–108
 solar lighting, 41, 118
 solid waste, 47, 120
 Solutionists, librarians as, 5–6
 species loss, 19
 Speth, James, 5
 staff. *See* employees

Standardized Usage Statistics Harvesting Initiative (SUSHI), 55
 statements, strongly worded, 105–106
 statistics, on usage, 55
Steady State Economics (Daly), 18
 stewardship, as library value, 13–14
 strong sustainability, 16–17
 supporting services, 19–20
 sustainability
 ecology and, 5, 15–18
 economy and, 5, 52–59
 equity and, 5, 61–67
 history of, 5, 15–16
 interpretations of, 16–18
 librarians and, 5–6, 21–22
 scientific support for, 18–21
 transitioning to, 8, 25–26, 37–38
 sustainability assessments. *See*
 assessment tools
 sustainability committees
 assessments with, 29–31, 115–116
 creation of, 25–29
 goals of, 30, 51–52
 sustainability plans and,
 32–34, 127–128
 sustainability plans
 creation of, 31–34, 39, 54,
 59, 67, 71–72, 117
 open access and, 56–58
 sample plan, 127–129
 Sustainability Roundtable, 105
 sustainable development, 5, 15–16
 Swartz, Aaron, 89, 92–94

T

taxes, on carbon, 62
 technology
 clean technology, 103–107
 corporate power and, 57, 72–79
 negative impact of, 6–7, 16, 38, 101
 telecommuting, 43–44, 119
 temperature
 global increases in, 21, 103,
 105–106, 113
 in library buildings, 41–42, 118
 See also climate change
 thermostat settings, 42

Transition Town movement, 22, 27, 31,
 116
 transportation choices, 33, 38–40, 43–46,
 118–119, 128–129
 Trenberth, Kevin, 4
The Twenty-Ninth Day (Brown), 18–19

U

Uni-Read, 90
 United Nations, 4, 15–16, 19
 United States Attorney's Office, 93
 universal literacy, 13
 universities
 advocacy by, 106–107
 sustainability plans for,
 32–33, 127–129
 See also academic libraries
 Urban Librarians Unite, 89–90
 usage statistics, 55

V

values, of librarianship, 11–14, 62, 87,
 113, 132
 vehicles, library owned, 46, 119
 vendors
 local alternatives to, 59, 123
 negotiating with, 14, 66, 86–87,
 104, 107–108, 125–126
 vulnerability to, 78, 80–81
 virtual libraries, vision of, 73
 visions, of the future, 111–114

W

walking, encouraging, 44–45
 waste disposal, 47–48, 120
 water
 greening practices for, 48–49, 120
 scarcity of, 20–21
 weak sustainability, 16–17
 Wilson, Pauline, 81
 withdrawn materials, 47, 120
 World Commission on the Environment
 and Development (WCED), 15–16
 World Council of Churches, 15–16

Z

Zabriskie, Christian, 90